App. No. 10/616,266
Office Action Dated December 30, 2005

REMARKS

Favorable reconsideration is requested in view of the following remarks. Claims 1-4 are pending in the application.

Claims 1-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants' admitted prior art (Figs. 6-7 and page 1; hereinafter "Reference 1") in view of Shibata et al. (US 5,657,172). Applicants respectfully traverse the rejection.

Claim 1 is directed to an objective lens driving device for focusing a light beam on a disk. The lens driving device requires a lens holder that can be driven along three axes of focusing direction, tracking direction and radial tilting direction. In order to drive a lens holder in the radial tilting direction, the invention in claim 1 includes two focusing coils that are each wound in a substantially rectangular toroidal shape. A yoke holding a magnet is arranged inside each focusing coil. A bridging yoke connects the open ends of the two yokes and thus provides a bypath for the magnetic flux. The bridging yoke helps prevent leakage of magnetic flux that may cause an electromagnetic force in a direction opposite to the focusing direction and thus suppress pitching vibrations and improves driving sensitivity.

Shibata et al. fail to disclose two focusing coils that have a yoke holding a magnet inside each of them. Rather, Shibata et al. disclose only one focusing coil and only one magnet that is inside the focusing coil. Moreover, Shibata et al. do not teach or suggest a bridging yoke for connecting two yokes, each of which is inside a focusing coil. In fact, Shibata et al. only disclose using a bridging yoke for connecting an inner yoke that is inside a focusing coil and another yoke that is not in a focusing coil. This single focusing coil structure of Shibata et al. by no means teaches or suggests a structure of a bridging yoke for connecting two yokes, each of which is inside a focusing coil, as required by claim 1.

Applying Shibata et al.'s teaching to the present Figs. 6 and 7, Reference 1 would suggest that two bridging yokes should be used, each of which connects a yoke that is arranged inside a

focusing coil and another yoke that is not in a focusing coil. Such a structure can be seen in Fig 4 of the present application, illustrated as a "comparative example". Reference 1 in view of Shibata et al. does not teach or suggest a bridging yoke connect two yokes that are in two focusing coils separately, as required by the invention in claim 1.

Moreover, Applicant respectfully submits that the Reference 1 and Shibata et al. cannot be combined in the manner required to reach the invention of claim1. As illustrated in Fig. 4 of the present application, even if one of ordinary skill attempts to combine the teaching of the Reference 1 and the Shibata et al., problems would arise. As illustrated in page 9, line 37, and page 10, lines 1-15, the problems are: 1) the lens holder's range of movement along the axis of the focusing direction decreased; 2) the thickness of the objective lens driving device increases; and 3) if attempting to secure the range of movement of the lens holder and in the mean time suppressing an increase in the thickness of the objective lens driving device, an effective dimension of the tracking coil, especially the dimension along the axis of the focusing direction, may be secured inadequately, thus, hampers the improvement in the driving efficiency in the tracking direction. These problems partially frustrate the intended purpose of Reference 1 to drive the lens an intended distance along three axes of focusing direction, tracking direction, and radial tilting direction. Therefore, there is no teaching, suggestion or motivation to combine Reference 1 with Shibata et al. as Examiner has done. Applicant respectfully submits that the Reference in view of Shibata et al. fail to teach or suggest the invention as in claim 1.

For at least these reasons, claim 1 is patentable over Reference 1 in view of Shibata et al. Claims 2-4 depend from claim 1 and are patentable along with claim 1 and need not be separately distinguished at this time.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reference 1 in view of Shibata et al. and further in view of Kawano (US 6,570,720). Applicants respectfully traverse this rejection for the same reasons discussed above regarding claims 1-4.

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In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612) 455-3804.

Respectfully Submitted,

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